

INDEX OF CONTRIBUTING AUTHORS

475

- | R | T |
|----------------------------------|--|
| Mapson, L. W., 9:119;
13:329 | Raggio, M., 13:109
Raggio, N., 13:109 |
| Marre, E., 12:195 | Ramstad, E., 15:143 |
| Mayer, A. M., 13:437 | Raney, F. C., 12:265 |
| Menke, W., 13:27 | Ranson, S. L., 11:81 |
| Mercer, F., 11:1 | Raschke, K., 11:111 |
| Middleton, J. T., 12:431 | Ray, P. M., 9:81 |
| Miller, C. O., 12:395 | Reinbothe, H., 13:129 |
| Millerd, A., 13:559 | Reinert, J., 10:441 |
| Milner, H. W., 16:203 | Reuther, W., 9:175 |
| Mirov, N. T., 10:223 | Rosenberg, A. J., 13:
171 |
| Mohr, H., 13:465 | Rufelt, H., 12:409 |
| Mollenhauer, H. H., 17:
27 | Russell, R. S., 11:127;
14:271 |
| Moreland, D. E., 18:365 | S |
| Morre, D. J., 17:27 | Sachs, R. M., 16:73 |
| Mothes, K., 13:129 | Sadasivan, T. S., 12:449 |
| Mudd, J. B., 18:229 | Salisbury, F. B., 12:293 |
| Mühlenthaler, K., 18:1 | San Pietro, A., 16:155 |
| N | Sargent, J. A., 16:1 |
| Näf, U., 13:507 | Sax, K., 13:489 |
| Neish, A. C., 11:55 | Scott, B. I. H., 18:409 |
| Newcomb, E. H., 14:43 | Scott, K. J., 13:559 |
| Nicholas, D. J. D., 12:63 | Searle, N. E., 16:97 |
| Nickerson, W. J., 15:327 | Setterfield, G., 12:35 |
| Nielson, E. S., 11:341 | Shantz, E. M., 10:379;
17:409 |
| Nordin, J. H., 16:393 | Shapiro, R. E., 12:91 |
| O | Siegel, A., 11:277 |
| O'hEocha, C., 16:415 | Siegelman, H. W., 16:383 |
| Olien, C. R., 18:387 | Silman, I., 18:147 |
| Ota, Y., 15:17 | Slatyer, R. O., 13:351 |
| Ory, R. L., 17:113 | Smith, J. H. C., 14:181 |
| Oswald, W. J., 15:387 | Smith, L., 9:449 |
| P | Smith, P. F., 13:81 |
| Paleg, L. G., 16:291 | Sorger, G. J., 17:47 |
| Philip, J. R., 17:245 | Stahmann, M. A., 14:137 |
| Phinney, B. O., 11:411 | Stange, L., 16:119 |
| Pirie, N. W., 10:33 | Stanley, R. G., 10:223 |
| Pirson, A., 17:439 | Steemann Nielsen, E., 11:
341 |
| Poljakoff-Mayber, A., 13:
437 | Steinberg, R. A., 9:151 |
| Porter, H. K., 13:303 | Stern, H., 17:345 |
| Porter, J. W., 18:197 | Steward, F. C., 10:379 |
| Pridham, J. B., 16:13 | Stewart, I., 14:295 |
| Provostoli, L., 15:37 | Stiller, M., 13:151 |
| Purves, W. K., 11:239 | Stout, P. R., 10:277 |
| Q | Street, H. E., 17:315 |
| Quastel, J. H., 16:217 | Stuart, N. W., 12:369 |
| | Stumpf, P. K., 10:197 |
| | Sweeney, B. M., 14:411 |
| | T |
| | Talling, J. F., 12:133 |
| | Tamiya, H., 17:1 |
| | Taylor, J. H., 12:327 |
| | Teubner, F. G., 10:13 |
| | Thimann, K. V., 14:1 |
| | Thomas, M., 11:81 |
| | Thompson, J. F., 18:59 |
| | Tranquillini, W., 15:345 |
| | Tso, P. O. P., 13:45 |
| | Tso, T. C., 9:151 |
| | U |
| | Ulrich, R., 9:385 |
| | Umbarger, H. E., 14:19 |
| | V |
| | Vaadia, Y., 12:265 |
| | van Niel, C. B., 13:1 |
| | Varner, J. E., 12:245 |
| | Vegis, A., 15:185 |
| | Vernon, L. P., 15:73 |
| | Virtanen, A. I., 12:1 |
| | W |
| | Webster, G., 12:113 |
| | Wellensiek, S. J., 10:
147 |
| | West, C. A., 11:411 |
| | Wheeler, A. W., 14:385 |
| | Wildman, S. G., 11:277 |
| | Wilkins, M. B., 17:379 |
| | Wilson, L. G., 13:201 |
| | Wittwer, S. H., 10:13 |
| | Wolken, J. J., 10:71 |
| | Wolter, K. E., 17:209 |
| | Wood, R. K. S., 11:299 |
| | Woodford, E. K., 9:311 |
| | Y |
| | Yarwood, C. E., 18:419 |
| | Yatsu, L. Y., 17:113 |
| | Yemm, F. W., 9:245 |
| | Yocum, C. S., 11:25 |
| | Z |
| | Zelitch, I., 15:121 |
| | Zill, L. P., 13:225 |
| | Zimmerman, M. H., 11:
167 |

INDEX OF CHAPTER TITLES

VOLUMES 9-18

PREFATORY

Plant Physiology and Horticulture	W. H. Chandler	9:1-12
Some Aspects of Amino Acid Synthesis in Plants and Related Subjects	A. I. Virtanen	12:1-12
The Present Status of the Comparative Study of Photosynthesis	C. B. van Niel	13:1-26
Plant Growth Substances; Past, Present, and Future	K. V. Thimann	14:1-18
Synchronous Cultures of Algae	H. Tamya	17:1-26
CELL STRUCTURE AND FUNCTION	J. J. Wolken	10:71-86
The Structure of the Chloroplast	F. Mercer	11:1-24
The Submicroscopic Structure of the Cell	F. L. Crane	12:13-24
Structure and Function of Mitochondria	G. Setterfield, S. T. Bayley	12:35-62
Structure and Physiology of Cell Walls	W. Menke	13:27-44
Structure and Chemistry of Plastids	P. O. P. Ts'o	13:45-80
The Ribosomes-Ribonucleoprotein Particles	H. E. Umbarger	14:19-42
The Integration of Metabolic Pathways	E. H. Newcomb	14:43-64
Cytoplasm-Cell Wall Relationships	J. Haemmerling	14:65-92
Nucleo-Cytoplasmic Interactions in Acetabularia and Other Cells	A. A. Benson	15:1-16
Plant Membrane Lipids	Y. Oota	15:17-36
RNA in Developing Plant Cells	H. H. Mollenhauer, D. J. Morre	17:27-46
Goigi Apparatus and Plant Secretion	K. Mühlenthaler	18:1-24
Ultrastructure and Formation of Plant Cell Walls	M. Birnstiel	18:25-58
The Nucleolus in Cell Metabolism	W. Reuther, T. W. Embleton, W. W. Jones	9:175-206
MINERAL NUTRITION	S. H. Wittwer, F. G. Teubner	10:13-32
Mineral Nutrition of Tree Crops	T. C. Broyer, P. R. Stout	10:277-300
Foliar Absorption of Mineral Nutrients	D. J. D. Nicholas	12:63-90
The Macroelement Elements	M. Fried, R. E. Shapiro	12:91-112
Minor Mineral Nutrients	P. F. Smith	13:81-108
Soil-Plant Relationships in Ion Uptake	J. C. Brown	14:93-106
Mineral Analysis of Plant Tissues	G. C. Gerloff	14:107-24
Interactions Involving Nutrient Ele- ments	S. H. Hutner, L. Provasoli	15:37-56
Comparative Mineral Nutrition of Plants	H. J. Evans, G. J. Sorger	17:47-76
Nutrition of Algae	E. G. Bolland, G. W. Butler	17:77-112
Role of Mineral Elements with Emphasis on the Univalent Cations	J. F. Thompson	18:59-84
Mineral Nutrition of Plants	E. W. Yemm, B. F. Folkes	9:245-80
Sulfur Metabolism in Plants	N. W. Pirie	10:33-52
NITROGEN METABOLISM	R. H. Burris	10:301-28
The Metabolism of Amino Acids and Proteins in Plants	C. S. Yocom	11:25-36
Leaf Proteins	G. Webster	12:113-32
Nitrogen Nutrition	M. Raggio, N. Raggio	13:109-28
Nitrogen Fixation	H. Reinbothe, K. Mothes	13:129-50
Protein Synthesis	E. Kessler	14:57-72
Root Nodules	J. E. Carnahan, J. E. Castle	14:125-36
Urea, Ureides, and Guanidines in Plants	M. A. Stahmann	14:137-58
Nitrate Assimilation by Plants	W. L. Kretovich	16:141-54
Nitrogen Fixation		
Plant Proteins		
Some Problems of Amino Acid and Amide Biosynthesis in Plants		

INDEX OF CHAPTER TITLES

477

Biliproteins of Algae	C. O hEocha	16:415-34
Seed Proteins	A. M. Altschul, L. Y. Yatsu, R. L. Ory, E. M. Engelman	17:113-36
Physical and Chemical Properties of Plant Viruses	R. Haselkorn	17:137-54
Biological Nitrogen Fixation	R. H. Burris	17:155-84
Aspects of Amino Acid Metabolism in Plants	L. Powden	18:85-106
Fixation of Nitrogen by Higher Plants Other Than Legumes	G. Bond	18:107-26
Protein Synthesis in Higher Plants	R. J. Mans	18:127-46
PHOTOSYNTHESIS		
The Quantum Yield of Photosynthesis	R. Emerson	9:1-24
Cytochromes in Plants	L. Smith, B. Chance	9:449-82
Light-Induced Reactions of Bacterial Chromatophores and Their Relation to Photosynthesis	A. W. Frenkel	10:53-70
Energy Transfer Through Phosphorylation Mechanisms in Photosynthesis	O. Kandler	11:37-54
The Primary Processes of Photosynthesis in Plants	A. A. Krasnovsky	11:363-410
Photosynthesis Under Natural Conditions	J. F. Talling	12:133-54
Photosynthesis	G. Hoch, B. Kok	12:155-94
The Path of Carbon in Photosynthesis	M. Stiller	13:151-70
Photosynthesis: Primary Physical and Chemical Processes	R. K. Clayton	14:159-80
The Major and Accessory Pigments in Photosynthesis	J. H. C. Smith, C. S. French	14:181-224
Bacterial Photosynthesis	L. P. Vernon	15:73-100
Kinetic Studies of the Photosynthetic Carbon Reduction Cycle	J. A. Bassham	15:101-20
Enzymology of Energy Conversion in Photosynthesis	A. San Pietro, C. C. Black	16:155-94
Partial Reactions of Photosynthesis and Photoreduction	N. I. Bishop	17:185-208
RESPIRATION	L. Smith, B. Chance	9:449-82
Cytochromes in Plants	D. P. Hackett	10:113-46
Respiratory Mechanisms in Higher Plants	M. Gibbs	10:329-78
Metabolism of Carbon Compounds	E. Marre	12:195-218
Phosphorylation in Higher Plants	G. Ducet, A. J. Rosenberg	13:171-200
Leaf Respiration	I. Zelitch	15:121-42
Organic Acids and Respiration in Photosynthetic Tissues	M. Lieberman, J. E. Baker	16:343-82
Respiratory Electron Transport	D. E. Green, I. Silman	18:147-78
Structure of the Mitochondrial Electron Transfer Chain	L. W. Mapson	9:119-50
GENERAL METABOLISM	R. Ulrich	9:385-416
Metabolism of Ascorbic Acid in Plants: Part I. Function	L. Bogorad	9:417-48
Postharvest Physiology of Fruits	R. E. Kremers	10:185-96
The Biogenesis of Flavonoids	P. K. Stumpf, C. Bradbeer	10:197-222
The Lignins	M. Gibbs	10:329-78
Fat Metabolism in Higher Plants	A. C. Neish	11:55-80
Metabolism of Carbon Compounds	S. L. Ranson, M. Thomas	11:81-110
Biosynthetic Pathways of Aromatic Compounds	T. W. Goodwin	12:219-44
Crassulacean Acid Metabolism	J. E. Varner	12:245-64
Biosynthesis and Function of Carotenoids	L. G. Wilson	13:201-24
Biochemistry of Senescence	L. P. Zill, G. M. Cheniae	13:225-64
Metabolism of Sulfate: Sulfate Reduction	S. P. Burg	13:265-302
Lipid Metabolism	H. K. Porter	13:303-28
The Physiology of Ethylene Formation		
Synthesis of Polysaccharides of Higher Plants		

INDEX OF CHAPTER TITLES

Biosynthesis of Carotenes	J. W. Porter, D. G. Anderson	18:197-228
Fat Metabolism in Plants	J. B. Mudd	18:229-52
Ascorbic Acid Metabolism in Plants:		
Part II. Biosynthesis	F. A. Isherwood, L. W. Mapson	13:329-50
Biochemistry of Plant Steroids	E. Heftmann	14:225-48
Alkaloid Biogenesis	E. Ramstad, S. Agurell	15:143-63
Low Molecular Weight Phenols in Higher Plants	J. B. Pridham	16:13-36
Biochemical Aspects of Plant Polysaccharides	J. H. Nordin, S. Kirkwood	16:393-414
Cyclitols in Plants: Biochemistry and Physiology	L. Anderson, K. E. Wolter	17:209-22
Lignins	S. A. Brown	17:223-44
Alkaloid Biosynthesis	E. Leete	18:179-96
Transformation of Sugars in Plants	W. Z. Hassid	18:253-80
WATER RELATIONS	K. Raschke	11:111-26
Heat Transfer Between the Plant and the Environment	R. S. Russell, D. A. Barber	11:127-40
The Relationship Between Salt Uptake and the Absorption of Water by Intact Plants	Y. Vaadia, F. C. Raney, R. M. Hagan	12:265-92
Plant Water Deficits and Physiological Processes	R. O. Slatyer	13:351-78
Internal Water Relations of Higher Plants	H. J. Ketellapper	14:249-70
Stomatal Physiology	W. R. Gardner	16:323-42
Dynamic Aspects of Soil-Water Availability to Plants	J. R. Philip	17:245-68
Plant Water Relations: Some Physical Aspects	J. Gale, R. M. Hagan	17:269-82
Plant Antitranspirants	S. H. Wittwer, F. G. Teubner	10:13-32
ABSORPTION AND TRANSLOCATION	G. G. Lattes	10:87-112
Foliar Absorption of Mineral Nutrients	E. G. Bolland	11:114-66
Active Transport of Salt into Plant Tissue	M. H. Zimmermann	11:167-90
Transport in the Xylem	J. Dainty	13:379-402
Transport in the Phloem	R. S. Russell	14:271-94
Ion Transport and Electrical Potentials in Plant Cells	I. Stewart	14:295-310
The Extent and Consequences of the Uptake by Plants of Radioactive Nuclides	E. Epstein, R. L. Jefferies	15:169-84
Chelation in the Absorption and Translocation of Mineral Elements	J. A. Sargent	16:1-12
The Genetic Basis of Selective Ion Transport in Plants	R. Brouwer	16:241-66
The Penetration of Growth Regulators into Leaves	C. C. McCready	17:283-94
Ion Absorption and Transport in Plants	W. Franke	18:281-300
Translocation of Growth Regulators	J. A. Bentley	9:47-80
Mechanisms of Foliar Penetration of Solutions	P. M. Ray	9:81-118
GROWTH AND DEVELOPMENT	A. C. Leopold	9:281-310
The Naturally Occurring Auxins and Inhibitors	E. K. Woodford, K. Holly, C. C. McCready	9:311-58
Destruction of Auxin	L. F. Jaffe	9:359-84
Auxin Uses in the Control of Flowering and Fruiting	J. Doorenbos, S. J. Wellensiek	10:147-84
Herbicides		
Morphogenesis in Lower Plants		
Photoperiodic Control of Floral Induction		

INDEX OF CHAPTER TITLES

479

The Chemical Regulation of Growth (Some Substances and Extracts Which Induce Growth and Morphogenesis)	F. C. Steward, E. M. Shantz	10:379-404
Auxins and Fungi	H. E. Gruen	10:405-40
Phototropism and Phototaxis	J. Reinert	10:441-58
Vernalization and Its Relation to Dormancy	P. Chouard	11:191-238
The Mechanism of Action of Auxin Gibberellins as Native Plant Growth Regulators	A. W. Galston, W. K. Purves	11:239-76
Photoperiodism and the Flowering Process	B. O. Phinney, C. A. West	11:411-36
Physiology of Mitosis and Meiosis	F. B. Salisbury	12:293-326
Indole Auxins	J. H. Taylor	12:327-44
Applied Aspects of the Gibberellins	C. H. Fawcett	12:345-68
Kinetin and Related Compounds in Plant Growth	N. W. Stuart, H. M. Cathey	12:369-94
Geotropism in Roots and Shoots	C. O. Miller	12:395-408
Longevity of Plant Organs: Internal Factors Controlling Abscission	H. Rufelt	12:409-30
Seed Germination	W. P. Jacobs	13:403-36
Primary Effects of Light on Growth	D. Koller, A. M. Mayer, A. Poljakoff-Mayber, S. Klein	13:437-64
Aspects of Aging in Plants	H. Mohr	13:465-88
Developmental Physiology of Lower Archegoniates	K. Sax	13:489-506
The Phototropic Responses of Higher Plants	U. Naf	13:507-32
Mechanisms of Herbicide Action	W. R. Briggs	14:311-52
The Physiology of Leaf Growth	J. L. Hilton, L. L. Jansen, H. M. Hull	14:353-84
Biological Clocks in Plants	E. C. Humphries, A. W. Wheeler	14:385-410
Dormancy in Higher Plants	B. M. Sweeney	14:411-40
Shoot Morphogenesis	A. Vegas	15:185-224
Pollen Physiology	A. Allsopp	15:225-54
Physiology of Growth-Retarding Chemicals	H. F. Linskens	15:255-70
Growth Substances in Fruit Setting and Development	H. M. Cathey	15:271-302
Biochemical Aspects of Morphogenesis in Algae and Fungi	J. C. Crane	15:303-26
The Analysis of Interactions of Physical and Chemical Factors of Plant Growth	W. J. Nickerson, S. Bartnicki- Garcia	15:327-44
Stereoisomerism in Plant Growth Regula- tors of the Auxin Type	J. A. Lockhart	16:37-52
Stem Elongation	A. Fredga, B. Åberg	16:53-72
Physiology of Flowering	R. M. Sachs	16:73-96
Plant Cell Differentiation	N. E. Searle	16:97-118
Perception of Environmental Stimuli Orientation Growth and Movement in Lower Plants	L. Stange	16:119-40
Physiological Effects of Gibberellins	W. Haupt	16:267-90
Properties of Phytochrome	L. G. Paleg	16:291-322
The Physiology of Phytochrome Differentiation	H. W. Siegelman, W. L. Butler	16:383-92
Chemistry and Physiology of Kinetin- like Compounds	W. S. Hillman	18:301-24
Mechanisms of Action of Herbicides	J. Heslop-Harrison	18:325-48
STRESS PHYSIOLOGY	D. S. Letham	18:349-64
Physiology of Salt Tolerance	D. E. Moreland	18:365-86
Photochemical Air Pollution Damage to Plants	L. Bernstein, H. C. Hayward	9:25-46
Biochemical Aspects of Temperature Response	J. T. Middleton	12:431-48
	J. Langridge	14:441-62

INDEX OF CHAPTER TITLES

The Physiology of Plants at High Altitudes	W. Tranquillini	15:345-62
Physiology of Plants Under Drought Freezing Stresses and Survival	P. A. Henckel	15:363-86
SPECIAL TOPICS	C. R. Olien	18:387-408
Physiology of the Tobacco Plant		
Physiology of the Fresh-Water Algae	R. A. Steinberg, T. C. Tso	9:151-74
The Pine Tree	R. W. Krauss	9:207-44
Physiology of Virus Diseases	N. T. Mirov, R. G. Stanley	10:223-38
Plant Chemotherapy	F. C. Bawden	10:239-56
Some Aspects of the Structure and Behavior of Tobacco Virus	A. E. Dimond, J. G. Horsfall	10:257-76
Pectic and Cellulolytic Enzymes in Plant Disease	A. Siegel, S. G. Wildman	11:277-98
Physics and Chemistry of Proto-plasmic Streaming	R. K. S. Wood	11:299-322
Productivity of the Oceans	N. Kamiya	11:323-40
Physiology of Wilt Disease	E. S. Nielsen	11:341-62
Tumor Inception and Development in the Crown Gall Disease	T. S. Sadasivan	12:449-68
Respiration of the Diseased Plant	A. C. Braun	13:533-58
Role of Plants in Closed Systems	A. Millerd, K. J. Scott	13:559-74
Interaction of Factors Affecting Yield	C. G. Golueke, W. J. Oswald	15:387-408
Physiological Aspects of Curing Plant Products	H. F. Clements	15:409-42
Absorption Spectroscopy <u>In Vivo</u> :	W. G. C. Forsyth	15:443-50
Theory and Application	W. L. Butler	15:451-70
The Photobiology of Fungi	M. J. Carlile	16:175-202
Physiology of Ecological Races and Species	W. M. Hiesey, H. W. Milner	16:203-16
Soil Metabolism	J. H. Quastel	16:217-40
Abscission and Its Control	H. R. Carns	17:295-314
The Physiology of Root Growth	H. E. Street	17:315-44
The Regulation of Cell Division	H. Stern	17:345-78
Geotropism	M. B. Wilkins	17:379-408
Chemistry of Naturally-Occurring Growth Regulating Substances	E. M. Shantz	17:409-38
Synchronized Dividing Algae	A. Pirson, H. Lorenzen	17:439-58
Postharvest Physiology of Fruits	E. Hansen	17:459-80
Electric Fields in Plants	B. I. H. Scott	18:409-18
Response to Parasites	C. E. Yarwood	18:419-38

